

Plug-in Signal Conditioners M-UNIT

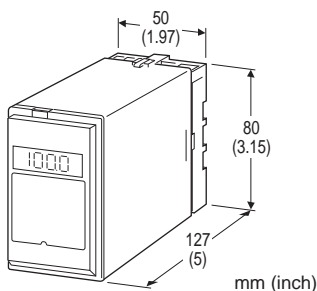
ISOLATOR

Functions & Features

- Standard instrumentation signal isolator
- Isolation up to 2000 V AC
- LCD meter (engineering unit display selectable)
- Simple loop test output (0 % and 100 %)
- High-density mounting

Typical Applications

- Isolation between control room and field instrumentation
- Eliminating ground loops



MODEL: YV-[1][2]-[3][4]

ORDERING INFORMATION

- Code number: YV-[1][2]-[3][4]
- Specify a code from below for each [1] through [4].
(e.g. YV-6A-B/E2/Q)
- Specify the specification for option code /Q
(e.g. /C01)

[1] INPUT

Current

A: 4 - 20 mA DC (Input resistance 250 Ω)

Voltage

6: 1 - 5 V DC (Input resistance 1 M Ω min.)

[2] OUTPUT

Current

A: 4 - 20 mA DC (Load resistance 750 Ω max.)

Voltage

6: 1 - 5 V DC (Load resistance 500 Ω min.)

[3] POWER INPUT

AC Power

B: 100 V AC

G: 200 V AC

[4] OPTIONS (multiple selections)

Input Signal Indicator

blank: Without

/E: With (0.0 - 100.0 % display)

/E2: With (in engineering unit with backlight and the simple loop test output)

OTHER OPTIONS

blank: none

/Q: Option other than the above (specify the specification)

SPECIFICATIONS OF OPTION: Q

COATING (For the detail, refer to M-System's web site.)

/C01: Silicone coating

/C02: Polyurethane coating

/C03: Rubber coating

GENERAL SPECIFICATIONS

Construction: Plug-in

Connection: M3.5 screw terminals

Housing material: Flame-resistant resin (black)

Isolation: Input to output to power

Overrange output: Approx. -10 to +120 % at 1 - 5 V

Zero adjustment: -5 to +5 % (front)

Span adjustment: 95 to 105 % (front)

Display scaling: -10000 - +10000; ex-factory set to 0.00 - 100.00 (%)

Engineering unit: %, μ V, mV, V, mA, A, $^{\circ}$ C, $^{\circ}$ F, Ω , DEG K, mHz, Hz, kHz, VAC, AAC, mg, g, kg, t, rpm or rps selectable

Simple loop test output: 0 % and 100 % signal simulated by selecting the front switch positions.

INPUT SPECIFICATIONS

- DC Current:

Shunt resistor attached to the input terminals (0.5 W)

INSTALLATION

Power input

•AC: Operational voltage range: rating \pm 10 %, 50/60 \pm 2 Hz, approx. 2 VA

(approx. 3 VA with Option /E2)

Operating temperature: -5 to +60 $^{\circ}$ C (23 to 140 $^{\circ}$ F)

Operating humidity: 30 to 90 %RH (non-condensing)

Mounting: Surface or DIN rail

Weight: 400 g (0.88 lbs)

PERFORMANCE in percentage of span

Accuracy: \pm 0.1 %

Display accuracy: \pm (0.1 % of FS + 1 digit)

Simple loop test output setting accuracy: \pm 0.5 %

Temp. coefficient: \pm 0.015 %/ $^{\circ}$ C (\pm 0.008 %/ $^{\circ}$ F)



Response time: ≤ 0.5 sec. (0 - 90 %)

Line voltage effect: ± 0.1 % over voltage range

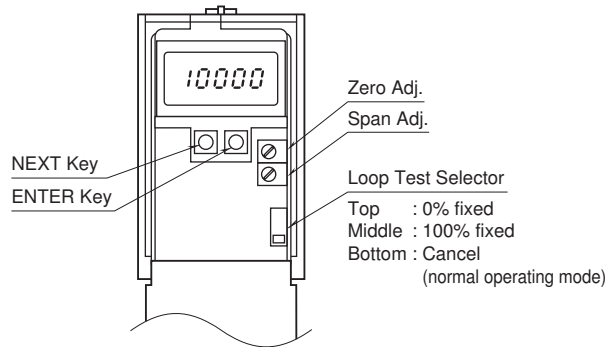
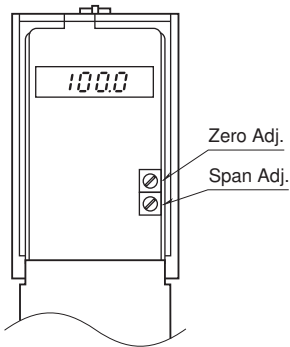
Insulation resistance: ≥ 100 M Ω with 500 V DC

Dielectric strength: 2000 V AC @1 minute (input to output to power to ground)

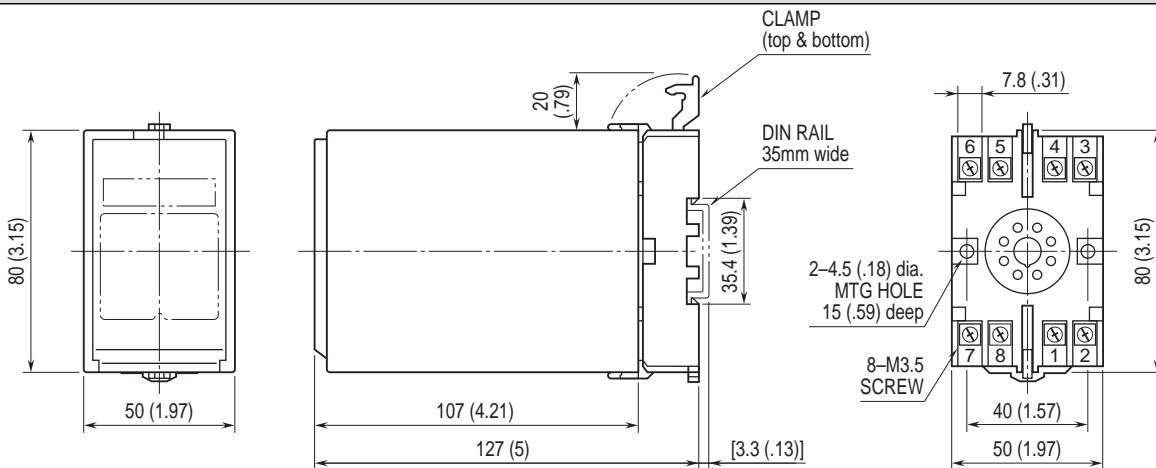
EXTERNAL VIEW

OPTION /E

OPTION /E2

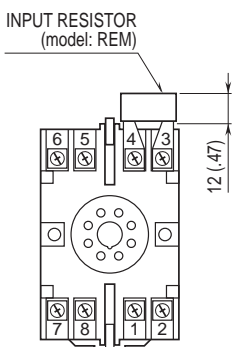


DIMENSIONS unit: mm (inch)



• When mounting, no extra space is needed between units.

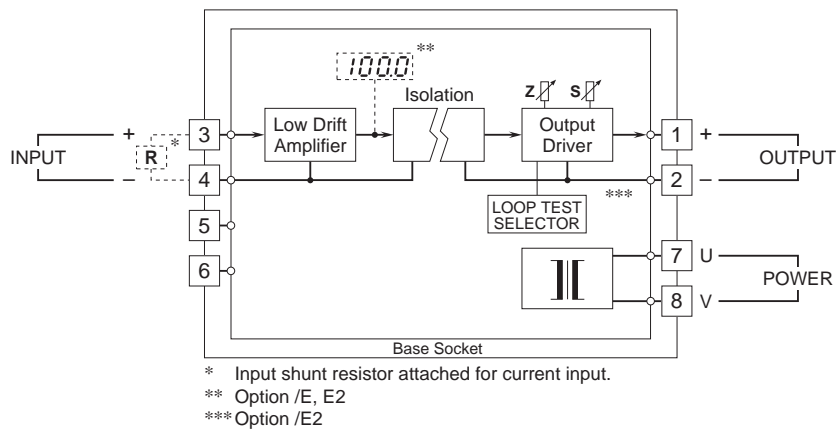
TERMINAL ASSIGNMENTS unit: mm (inch)



Input shunt resistor attached for current input.



SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



Specifications are subject to change without notice.

